

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A crystal analyzing apparatus comprising:  
an ion beam emitting ~~portion for emitting~~ unit configured to emit an ion beam onto a sample to sequentially form a plurality of sections of said sample;  
an electron beam emitting ~~portion for emitting~~ unit configured to emit an electron beam to each of said plurality of sections;  
a detecting ~~portion for detecting~~, unit configured to detect, with respect to each of said plurality of sections, an electron backscatter diffraction pattern produced from said sample as a result of the emission of said electron beam;  
a data processing ~~portion for constructing~~ unit configured to construct three-dimensional data about a crystal orientation distribution of said sample on the basis of results detected by said detecting ~~portion~~; unit; and  
an analyzing ~~portion for defining~~ unit configured to define an arbitrary two-dimensional section in said three-dimensional data and performing a crystal analysis about said arbitrary two-dimensional section.

Claim 2 (Original): The crystal analyzing apparatus according to claim 1, wherein said crystal analysis is one of preferred orientation analysis, grain size analysis, grain boundary characteristic analysis,  $\Sigma$ -value distribution analysis, and phase distribution analysis.

Claim 3 (Currently Amended): A crystal analyzing apparatus comprising:  
an ion beam emitting ~~portion for emitting~~ unit configured to emit an ion beam onto a sample to sequentially form a plurality of sections of said sample;

an electron beam emitting ~~portion for emitting~~ unit configured to emit an electron beam to each of said plurality of sections;

a detecting ~~portion for detecting~~, unit configured to detect with respect to each of said plurality of sections, an electron backscatter diffraction pattern produced from said sample as a result of the emission of said electron beam;

a data processing ~~portion for constructing~~ unit configured to construct three-dimensional data about a crystal orientation distribution of said sample on the basis of results detected by said detecting ~~portion~~; unit; and

an analyzing ~~portion for extracting~~ unit configured to extract an arbitrary three-dimensional region from said three-dimensional data and performing a crystal analysis about said arbitrary three-dimensional region.

Claim 4 (Original): The crystal analyzing apparatus according to claim 3, wherein said crystal analysis is one of preferred orientation analysis, grain size analysis, grain boundary characteristic analysis,  $\Sigma$ -value distribution analysis, and phase distribution analysis.